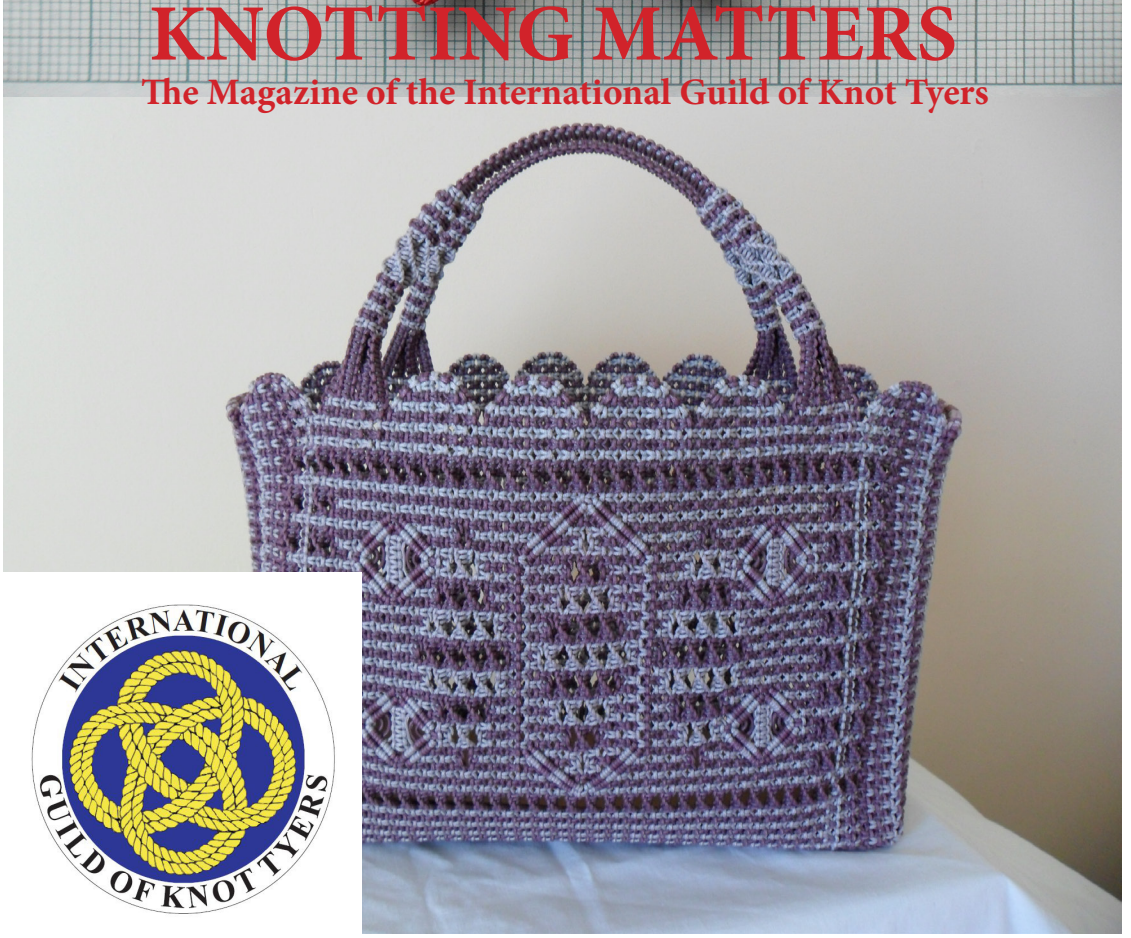
Issue 112 September 2011

KNOTTING MATTERS

The Magazine of the International Guild of Knot Tyers



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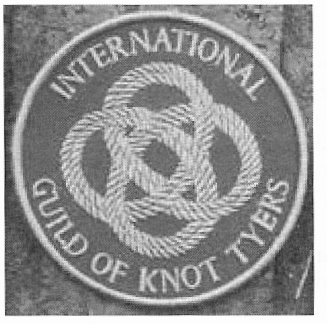

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Front Cover Joe Bennet's samples using two or three threads simultaneously for key-fobs. The line used is "Uncle Mac's Ice Fishing Line" half-hitched over an 18mm dowel. The ladies handbag is made in plum and grey using a 1.4mm venetian blind cord - great work as always Joe!

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Letters to The Editor
The Things You Say!!

Dear Editor,

In response to Owen Nuttall's call to correct basic mistakes in previous magazine issues, I would like to point out that his statement that the Zeppelin Bend and the Smith-Hunter bend are "two interlocking overhand knots" is incorrect. The Zeppelin Bend is not an interlocking overhand knot.

I admit to being fascinated by these symmetrical bends and make the following observations in using four of them over 35 years on my farm.

ZEPPELIN BEND: The most symmetrical and handsome of all the bends. I no longer use it in practice, however, because it slips or breaks under extreme load. There are two reasons for this:
(a) The knot centre pulls open (apart), which may cause slippage.
(b) The jamming parts loop only around two rope thicknesses on each side and the resulting tight radii (turns) weakens the rope at these points.

CARRICK BEND: Once again not two interlocking overhand knots but easy to tie and secure. For heavy rope towing (eg involving tractors) the open form with ends seized is my favourite [form]. Time spent seizing the ends is saved in the untying.

ASHLEY BEND: Two interlocking overhand knots.
Even in slippery rope [it] is a secure bend. In addition it does not have the tight radii (turns) of the previous two bends, wrapping as it does around three thicknesses of rope in the knot centre. Therefore, I suspect it has a higher breaking point than the previous two bends. Good for rope to about 20mm. My favourite.

HUNTERS BEND: Two interlocking overhand knots.
In structure and tying it is similar to Ashley's, although it looks quite different. More handsome perhaps and seems to have most of Ashley's good points.

In conclusion, I sometimes feel like an observer on the other side of the world. Regrettably, we Australians are too few in number and too far apart to form a group. Thank you to the office holders for your hard work and an excellent magazine.

Kind regards,
Steve Wicks.
South Australia.

To add to Owen Nuttall's interesting observations regarding the history of, and structural differences between Hunter's Bend and Zeppelin Bend (KM 111, p. 26), I'd like to comment on functional differences between these two excellent and handsome bends, both of them interlocking overhand knots, yet structurally quite different from each other as Owen described.

The Zeppelin Bend has a unique trait shared with very few knots (the Double Carrick Bend is one): after reeving the knot one can simply tug on both standing parts and it will snug up nicely without distorting or pulling the ends into the knot. This does not work with (and will distort) the Hunter's Bend, which its original creator, Phil Smith, named Rigger's Bend. Like most knots, it needs to be carefully worked into its final form, which is somewhat more compact than Zeppelin.

Which one to use? There is more than one way to tie each of these knots, and both can be tied blindfolded. Whichever seems easiest is what determines it for me. I regard the Zeppelin's 'just-tug-to snug' as a distinct advantage, especially when tied in the dark. But if compactness is important the Rigger/Hunter Bend has the advantage.

Rudi Petschek

Dear Editor,
I should like to reply to Owen K. Nuttall's comments in KM #111, p.5: To perceive the subtle differences in the Hunter/Rosendahl/Zeppelin genus of knots must take keen observational skills, a power that our noted member Owen K. Nuttall naturally possesses, but only in that very narrow field, since it does not seem to work on the names of Letters to the Editor. Having no interest in the above mentioned knot, I urge Owen to address his misgivings to either Robert Naracci or Bernard Collier.
Thank you.
Yours in knotting,
Roger Carter

POSTCARD FROM BELGIUM
Well folks, we are on the map!
Although IGKT has shown knotwork in other well-known places this display in the Royal Military Museum in Brussels is our first ever standing exhibition... and what a magnificent venue!

The museum, in the Parc du Cinquantenaire, is well worth a visit in itself if you happen to be passing. Our exhibition is set in the naval wing newly developed by Georges Bayot. Georges has also been the mastermind behind this display.

Work has been collected from members all round the world and the exhibits (all under glass) will be changed regularly so that there will be something different to look at on each visit. Among the pieces on loan from Des Pawson's museum there is also work done by past members. The Private View was well attended, with resplendent naval uniforms.

Congratulations to Georges Bayot for his fine work in arranging this. Thanks to him IGKT's profile has been raised several notches.

PS. The exhibition will continue till the end of September, so do visit if you are in the area. The Metro stop is Merode, and you will be able to see the museum from there.

Europa Chang Dawson
[P***hotographs of the museum exterior and a group of distinguished guests, sent/taken by Europa, are in the center pages of this issue - Ed***]

PLEASE HELP

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With this copy of Knotting Matters is an address sheet which has your recorded address, telephone number and email address. Please look carefully and see if your details are correct and, if not, return them to:

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or email at checkmem@igkt.net .

It takes a lot of work for Bruce to keep the database accurate and up-to-date - your help will be much appreciated and it will help us with the next item.

Previously we have published a printed membership booklet every few years, giving addresses, phone numbers etc. This is a very time-consuming task for the people who do the job and results in a list which is out-of-date before it even leaves the printers. It is also an expensive process.

We have decided, for a trial period, to make up-to-date lists available as pdf files on the website. You can find them at http://www.igkt.net/members-area/ where you will be asked for these details:

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There are several files which you can consult or download and print.

If you do not have access to a computer, please let the Secretary know and we will mail a printed copy of the list(s) you require.

Please do not give these details, or any copies of the membership list, to non-members. We are very conscious of the need not to transgress the Data Protection rules in members' countries.

These files will be updated about once a month, and at least just before the mailing of issues of Knotting Matters. We may well change the password occasionally, and this will be announced in KM.

Letter from a Bubbler

by Keith Johnson

Hello,
Today [*July 11, 2011*] I received an e-mail from a member of yours [*Philip Noble*] describing Swiss Weaving [*KM 111, p23, referring to swing braiding*] this way:
"...a photograph of two people with three strings [*actually four strings swung by Willeke van der Ham and Sheila Pearson*] suspended by a hook on a high beam. At the bottom of each string there is what looks like a full small plastic bottle acting as a weight. The idea is that by swinging the bottles across between the two folks in the right pattern, (similar to two-person juggling with three balls) then the rope can be made from the hook. They call this Swiss Weaving, though I never heard this term before [*see above - Ed*]."

He thought I might be interested in this because it seems similar to the weaving method I developed for braiding long cotton string wicks which I use for making soap bubbles. The Butcher's Twine absorbs a lot of extra liquid allowing the triangle to feed a fast-growing bubble.
http://www.keithmichealjohnson.com/KeithMichaelJohnson.com/Bubbleology.html
For years I've been braiding 3 or more long lengths of cotton string (butcher's twine) using my juggling skills. Three balls of string secured with elastic bands, the ends of each string tied together and that knot held aloft (tacked to the ceiling beams of my garage). By pushing the balls out and away from me they arc and "land" in the opposite hand. Alternating which hand I use to push the balls away causes a three-strand braid to form quickly and with a loose weave. Just the way I like it. When the braid reaches the balls, I let out more string from the balls, coil the braided length and rehang the system again from a point just above the terminus of the braided section. After figuring out where I left off (which hand was throwing which ball) I continue on until the braid is as long as I need it to be.

Letter from a Bubbler (cont'd)

My questions for you are these:
Is the Swiss Weave method [***Swing Braiding, Viking Braiding or Maypole Braiding***] described in your publication similar to what I'm doing? It seems like their weave would be tighter because of the "small bottles acting as a weight".
Are the bottles filled with liquid or are they the containers for the "yet-to-be-woven" string?

Working with fibers, weaving and "what-knot" has become a regular discussion amongst bubblers around the world. We wonder about which materials will best release the oddly viscous brew we are using - from cotton to bamboo and beyond. We talk about rope making and machines built to do the job. So much to learn and ponder!
Some of us are experimenting with building versions of nets. Exploring different dimensions and "hole" sizes to tune the nets and make blizzards of bubbles after pulling the nets from buckets of solution on a windy day....

....Wouldn't it be fun someday to get a few bubblers together with members of your International Guild of Knot Tyers? It would be quite a day, improvising ways wecould combine our talents, perhaps paving new avenues for our passions....

Until then, be well and thank you again.

Keith Johnson
Bubble Artist
Warwick, RI USA

[***How about it knotting folks? Want to get together with bubblers to explore some challenges and opportunities for mutual assistance? Maybe they could also help us with string theory...? Write to the Editor and I will be happy to pass on your inquiries and suggestions.***]

Opposite page - 'Atlas' refit of the bow and stern fenders by Dave Glasson in Sydney, Australia - great job Dave!

ATLAS

Notes from A Knotting Widow Secretary

"We really, really need a secretary!" So me, being a girl who can't say no, said 'ok I'll do it'. My problem? I am not a knot tyer, but I know lots of men (and women) who can. Will this hinder my role do you think? I don't think so, I am really good at sign posting people to someone who can. Previously the role has been filled by excellent knotters with vast knowledge of knotting - maybe this non-knotter can fulfil the role, with help from all quarters.

A few years ago Lonnie and I edited KM, he with his knot knowledge, me with my IT skills. As a couple we have been around the Guild for the past 18 or so years, so we are not rank beginners to the Guild and its workings.

I would like to say a big thank you to Barry for all of his help since I have picked up the baton, the help has been invaluable. His tenure of this post has seen huge strides made in bringing order and structure to the many strands of the Guild and its work.

So, what would you the members like me to do, is there anything that you have thought 'it would be good if someone would……', if so let me know, can't promise that I can but there is nothing not up for discussion. Please do keep sending me your questions albeit about knots and Guild queries, I like hearing from you, you are the members and the reason that a secretary is required. Remember also there is the Forum for any questions, I do check it regularly to ensure that answers and replies are forthcoming for all.

Remember to let me know of any new branches that open or anything interesting that is happening within your branch.
Margaret

A Letter From Our President

Since the last KM your Council has met on two occasions and we have managed to get to know each other better and to discuss several topics of importance to the Guild's future.

Guild Library
One of these items, which I mentioned in the last KM, is the future of the Guild's library of books. We have had offers of help from members willing to take on the role filled so well by Gordon Perry for many years. We also have an offer from the Librarian at the Chatham Historic Dockyard Trust to have the books at Chatham in a very appropriate setting. If we cannot find another long-term solution to the books' safe storage and accessibility, then we shall have to go down this or a similar route. If you have any ideas or comments about this, please let me or the Secretary know as a matter of some urgency.

Knot boards from 1986
Many of you will have memories of the wonderful exhibition of most of the knots in Ashley which took place in the in 1986, the Guild's 5th year. Since then the Guild has stored those knot-boards which were not returned to the people who made them. They have somewhat deteriorated over time and I have recently photographed all 420. They are about 40cmx20cmx8cm in size, and made of MDF. As promised in my last letter, I have moved the Guild's stored items to a less expensive storage unit. The knot-boards take up about half of the space we use and therefore cost a significant amount to store. We would like your advice about what should be done with the boards and to this end a selection are now displayed on the Knot Gallery section of the website (http://www.igkt.net/knotgallery/main.php).

There seem to be three options:

1. Anyone who would like the boards that they made could have them.
2. Unclaimed boards could go to anyone who would like them.
3. Because we have a full photographic record of the boards, we could dispose of them [***see center pages for a select few board photographs - Ed***].

Please let us know if you have strong feelings about this matter.

Educational Sponsorship

We have been in touch with the Tall Ships Youth Trust here in the UK and are actively involved in deciding how we might best sponsor young people who are learning about knotting and rigging. We would welcome suggestions from other members in other countries about similar sponsorship opportunities. As a Charity, one of our *raisons d'ẽtre* is to be involved with education.

2012 – 30 Years On

We have had a number of excellent suggestions about ways of celebrating the Guild's 30th anniversary next year and are actively pursuing them. Again, we would welcome further ideas from any member.

2013 – AGM

In view of the issues raised at the 2011 AGM about holding the 2013 AGM in the USA, we propose a form of compromise which, we hope, will meet with approval. The AGMs in the UK are always embedded in a very social weekend and we in no way want to upset this. We therefore suggest two simultaneous meetings on either side of the Atlantic with a video link for the business part of the AGM. This would then allow the surrounding events to continue as normal. Fortuitously, two sections of the Guild are having simultaneous meetings in Indiana, USA and Gloucester, UK over the weekend of 8/9 October this year and so we'll have an experimental link-up then.

Knot Scrutiny Committee

At various times in the history of the Guild there have been suggestions for a body to catalogue knots and to act as scrutineers of claims for new knots. Unfortunately none of these produced a long-lived group.

Our new Council member, Peter Hennessey (PeterWHennessey@hotmail.com), has agreed to try to co-ordinate a sub-committee with this aim [***to catalogue knots and to act as scrutineers of claims for new knots***]. Please get in touch directly with Peter if you would like to be involved with this important work.

Publicity

Phil Cook, who has just left his formal position as a member of the Council, has agreed to be the Publicity Secretary for the Guild. If there are any matters where material is being produced in the Guild's name rather than items from a specific Branch, please consult with Phil (publicity@igkt.net).

By the time this reaches you, those of us in the northern hemisphere will be at the end of what has been a busy summer. I hope the last three months have been good for you and we eagerly await the news in the next KM about the many events at which the Guild's work has been promoted.

Happy Knotting!

Colin

QUANTUM ENTANGLEMENT

[Quantum entanglement - already a concept of 21st century technology - is barely believable sub-atomic physics; do something to one particle and its entangled partner is affected instantly, no matter where they are, or how far apart!]

from KM's Science Correspondent

Surely there cannot be any similarity between theoretical wave functions and real-world knots? Amazingly, there is. In 1997 physicist Padmanabhan Aravind at Worcester Polytechnic Institute in Massachusetts demonstrated how two or more linked (entangled) particles obey mathematical rules applicable to basic knots and braids, with the act of observation equivalent to severing the knots. For example, the behaviour of three entangled particles bears curious similarities to the Borromean Rings, in which cutting any one free releases the other two. [see *25 Big Ideas, The Science That's Changing our World*, (C) Robert Matthews 2005 (reprinted twice 2006), published by Oneworld Publications, Oxford, England]

Braiding Tools and Lessons

by Mike "Hooey" Storch

String Cutter and Braiding Clamp Review

A long time ago I was apprenticed to a European fellow in one of the mechanical trades. One of the first things he impressed on me was that it is better to have high quality tools than cheap tools. I spent the next three years learning how to use, and get the most out of, those high quality tools I invested in. I came away from that shop with the firm belief that "quality does not cost - it pays". I apply that same attitude to the tools I use in my leather braiding today. To define it differently, quality tools will not make a craftsman out of you, but they will bring the craftsman that is in you out.

In more recent times I have been using some quality braiding tools made specifically for me me by PeeJay, a master machinist who is quite creative in his craft. Last year he made some fids for me for the finer work I enjoy doing. After using them for over a year now, I use no other, and my original fids are gathering dust.

I also have a braiding clamp and a string cutter of PeeJay's both of which he designed himself. The clamp does a wonderful job, and is really quite convenient to use. Light weight, with no sharp edges, it can be used on a table top or most any flat surface. No drilling, screws or bolts are necessary, yet it will hold firmly wherever you put it. It can be installed or removed in a moment without tools and will leave no scars. For my light and fine braiding, it works excellent. The jaws can be set to open up to almost an inch for heavier work. The string cutter will cut 90, 45 and 30 degree angles. There is a screw adjust for the width of a cut that is simple to use. Like the braiding clamp, it affixes to almost any flat surface without tools, screws or bolts, and will remain firmly in any position. Durability for any of the tools PeeJay makes is assured. These are lifetime tools.

PeeJay invites custom orders and your ideas and input will be happily received. He will work with your ideas if you want something more for your specific needs. He will also engrave your name if you ask! Finally, his prices are very fair. If you are interested and want to get further details, contact him at:
peejay1000@comcast.net Tell him I said Hi! It is all the introduction you will need.
Hooey
[***Hooey produces some of the finest leather braiding work ever and also runs braiding classes in the mountains of Idaho - Google him at Hooey leather braider or e-mail him at hooeyknows@yahoo.com - Ed***]

At upper left is PeeJay's lace-maker, bottom left is his clamp and top right is a selection of the exceptional fids he makes.

The Tubbs Cordage Company

A distilled account by Geoffrey Budworth

In 1850 two brothers from New Hampshire - Alfred L. Tubbs and his elder sibling Hiram - began a ship chandlery business in the rowdy and raucous gold mining town of San Francisco. From merely dealing in rope they went on to build their own rope mill, out of which the first hawser emerged five years before the start of the American civil war in 1861.

Tools and machinery had been brought from considerable distances. Fiber of adequate quality was even harder to obtain. Manpower too was a problem until 154 qualified and experienced men were persuaded to leave their comfortable New England homes and jobs, to undergo a perilous 3,000-mile journey, and face an uncertain future in what was then a proving ground for pioneers.

A skilled and devoted workforce, including many Chinese, was nevertheless created. Apprentices signed for one year, during which time any individual who quit with less than 10 days notice forfeited $5.00 from pay, which was 10 cents and hour once he (and later she) was able to do a competent full day's work. They could be discharged at any time 'for good and sufficient cause' and a page from the Tubbs' Apprentice Time Book for 1878 records as a reason for leaving '*...throwing bobbins at Chinamen*.'

And the business thrived. Subsidiary rope-making plants were acquired in Seattle (Washington), Portland (Oregon), Orange (California) and Manila (in the Philippines). Other undertakings included foreign and coastwise shipping; real estate and ranching; whaling; as well as vine growing and wine making near Calistoga. There was even a Tubbs Hotel - built in 1871, burned down in 1893 - in Oakland. The company survived boom and bust economies, the 1906 earthquake and fire, and two World Wars.

The brothers, industrious and conscientious men, involved themselves in much altruistic public service, and Alfred L. Tubbs' signature as a California State Senator was one of many to ratify the Constitutional Amendment abolishing slavery.

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Tubbs cordage ranged from binder twine to the mightiest of cables. During the Spanish-American War of 1898, three massive hawsers were supplied to the US Navy in record time to tow the ironclad monitor *Monterey* from San Francisco to the Philippines. Each rope was 12-inches in circumference, 1,200 feet long and weighed 5,200 pounds (over 2 1/2 short US tons).

The safety net deployed during the construction of the Golden Gate Bridge was a Tubbs product. Measuring 6,500 feet in length and 121 feet wide, with six-inch meshes, it consumed 3 1/2 million feet of rope. In the first three months, however, it saved 11 lives. Indeed, such was the confidence this imbued in the workers, that a penalty of half a day's pay had to be introduced to discourage time-wasting deliberate falls.

Tubbs ropes were also used in projects as dissimilar as the building of the Hoover Dam and rope rigging for the Hollywood movie films Treasure Island and Mutiny on the Bounty. Other major users of Tubbs ropes were the naval, merchant and fishing fleets, also the oil industries of California, Texas and Oklahoma.

With the disappearance of sailing ships, an era when customers could simply be relied upon to keep on placing orders, Tubbs time-honoured management structure became less relaible. Increasing business taxation and regulation aggravated the situation. Bit-by-bit outmoded methods were discarded in favour of 20th century business practices, the most notable being perhaps a switch to proactive selling.

From the 1850s onwards the company had exhibited at trade conventions - the Mechanics' Fair (San Francisco), the Lewis & Clark Exposition (Seattle), and the Golden Gate Exposition of 1915 - where it had been awarded several gold medals. Back in the day, they were assumed to be merely gilt-coated by Tubbs office staff who used them as paper weights. Only much later, after they had been assayed, were they found to be real gold ... when they were placed into a box lined with velvet and deposited within a secure vault.

For a fuller account of the Tubbs story, read *Men of Rope* by David Warren Ryder, published (San Francisco, 1964) by Historical Publications.

Each one of the book's 17 chapter headings has an evocative sepia colored pen sketch by the illustrator, Dan Adair, while the 146 pages of contents are further enlivened with at least 30 rare photographs portraying the company, its workforce and products.

Rich in factual detail and anecdotal diversions, this book is an absorbing American social and industrial history, which will appeal strongly to all who today, in one way or another, depend upon rope usage.

How I Did It

by Olaf Fischer

There was a fire aboard a ship next to the one for which this bowfender is being repaired. The fire was the result of bunkering operations (refueling) and it destroyed the color of this ship and a 4-metre length of the rope fender. The rope was originally all round the yacht, which was 10-metres long. The core of this fender is a 100-millimetre (4-inch) shipsrope around the whole yacht. This was all that the ship had originally. But this line was destroyed by the fire from the top of the ship to 4-metres aft on the port side.

To cover the rope I used at first an 8-millimetre line for about 1-metre of the length of the rope. For the next 3-metres I used 10-millimetre line to cover the base rope. At the bow the customer wanted to have this portion be a little bigger, like a bowfender on a tugboat. The core there was around 160 - 180-millimetres (almost 8-inches). I bound some old ropes around that section and then covered it with the 10-millimetre line. To finish the fender I made a 5 by 4 Turk's Head at each end of the thick section and put a 3 by 5 Turk's Head on top. The Turk's Heads were all made with 10-millimetre line.

The base rope was fastened to the ship using brackets. This was fixed with a clamping bolt and tensioning screw on the stern of the yacht. It took me 4 days to make the fender and about 900-metres of line. The fender itself is 8-metres long. My website is www.knoten-ole.de Thanks for looking!

Chicago Maritime Festival

by JP Honeywell

The Chicago Maritime Festival was held again this year at the Chicago History Museum on February 26. This was their 9th year and the IGKT has had a presence at most of them. There were displays and lectures on the maritime history of Chicago and the Great Lakes, lighthouses, boating safety, shipwrecks, maritime art, sea shanties and of course, knot tying. The man tying knots in the first picture is J P Honeywell with a display of his work. In the second picture my wife Arlene is holding the fort while I take a picture. The table looks a little bare because we were closing up; this was my fourth year and I never seem to get time to take pictures. The US Coast Guard was set up next to us with their display.

Literature about the IGKT was available and John Burke (Secretary IGKT-NAB) said he had an inquiry from a Sea Scout group about membership. Their group had a display and were teaching visitors how to tie a monkey fist.

In the evening there is a concert with performers from all over the county (did I mention that the Festival's main sponsor is the Old Town School of Folk Music?) and this year there was a performance by the Belize Cultural and Heritage Association.

Plans are already being made for the 10th anniversary festival next year on February 25, 2012. Their web site is www.chicagomaritimefestival.org. See you there next year.

Marlinespike Skills Class

by Rusty Helms and Gary Summers

The Crossroads of America Council Boy Scouts of America, Indianapolis, IN held their Marlinspike Skills workshop on March 4, 5 and 6. The training is held the first weekend in March; this year's training was held at the new council office and training center. The class is offered only to registered Scouters and is intended to teach adult leaders knotting skills to take back to their units.

The training is split into 3 classes, Marlinspike Skills I, II and III. The MS I class teaches about 30 knots. Included are a number of hitches, whippings, turkshead knots, ocean mat, splices, star knot and monkey fist. The MS II class builds on MS I. The students are taught the Matthew Walker Knot and some flat, round and half-round braids, the diamond knot, and others. The "test" for the class is to use the knots learned in MS I and II to make a key fob and a riggers lanyard. The decision on the types and placement of knots and braids for the project for the most part is left up to the students. In MS III the students are taught the pineapple knot and how to construct a small ditty bag. Part of the class, if time permits, is to also make a lanyard for your ditty bag, or at least plan and show the instructor how you would construct one. Maybe a future Ditty Bag award winner will come from the class?

This year's classes had 16 students in MS I, 6 in MS II and 5 in MS III. There were participants from 5 states.

Marlinspike I class.

Staff and students.

The IGKT-NAB was well represented among the staff and students.

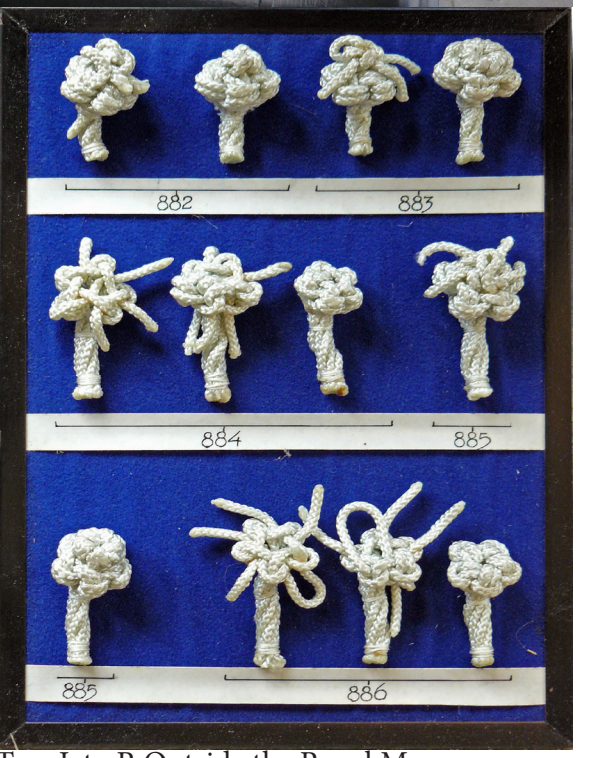
Front row: Rusty Helms, John Waidner, Dakorie McElhaney, John DeWilde, Chris Sparks, John Burke, Denise Purlie-Andrews, Scott "Sully" Sullivan and Keith Kohanzo.

Back row: David Largent, Joe Bates, Eric Wickizer, Paul Zimmermann and Course Director Gary Summers.

MUSÉE ROYAL DE L'ARMÉE ET D'HISTOIRE MILITAIRE
KONINKLIJK MUSEUM VAN HET LEGER EN VAN KRIJGSGESCHIEDENIS

No. 825
FLAT LANYARD KNOT
No. 826
FLAT LANYARD KNOT
No. 827
FLAT LANYARD KNOT
No. 828
FLAT LANYARD KNOT
No. 829
FLAT LANYARD KNOT
No. 830

No. 3071
14-STRAND
No. 3072
20-STRAND
No. 2911
CROWN SINNET 3 strands
No. 2913
FIVE- and SIX STRAND CROWN SINNETS
No. 2915
SINNET made with alternate RIGHT and LEFT CROWNS



No. 2912
FOUR-STRAND CROWN SINNET
No. 2914
RIGHT and LEFT CROWNS with three strands
No. 2916
SINNET made with alternate RIGHT and LEFT CROWNS

Top; L to R Outside the Royal Museum; a group of Knot-Tyers from France and England, a range of cannon outside the museum. Bottom; L to R Lanyard knots #825 - #830, flat sennits #3070 - #3072 (T), chain & crown sennits, #2911 to #2916 (B), multi-strand button knots, tied in the hand ABOK, p. 164 all from the IGKT 1986 collection.

Matthew Walker & Family

by Des Pawson

re: Matthew Walker and family

My good friend Charlie Burden, who is researching the history of the sea chest, and has been reading many tales of life at sea, spotted this in *Seven Years of a Sailor's Life* by George Edward Clark of Lynn, Mass., Boston, Adams & Company, 1867, page 13.

[He has gone to sea for the first time aboard a coasting schooner out of Salem about 1860]

"***The mate filled my head and hands with 'prentice sailor work; splicing, tying knots and bowlines, Turk's-head, double in single walls, crowns, Martha and other Walker's knots, turning in and fidding were given me for practice.***"

Charlie's comments are:-

[It seems to me that the book having been written just after he finished his "Seven Years", that he could not have been confusing Martha and Matthew and must have recalled knots named for other members of the Walker Family. Wonder if you have run into other Walkers before?]

My thoughts are that even if it was a mis-transcription of 'Martha' for 'Matthew', it still hints at a range of Walkers' knots.

I wonder if any one else has come across any other references by name to knots in the Walker family.

Des Pawson, Ipswich.

What Knot to Believe?

by Giles Camplin with permission

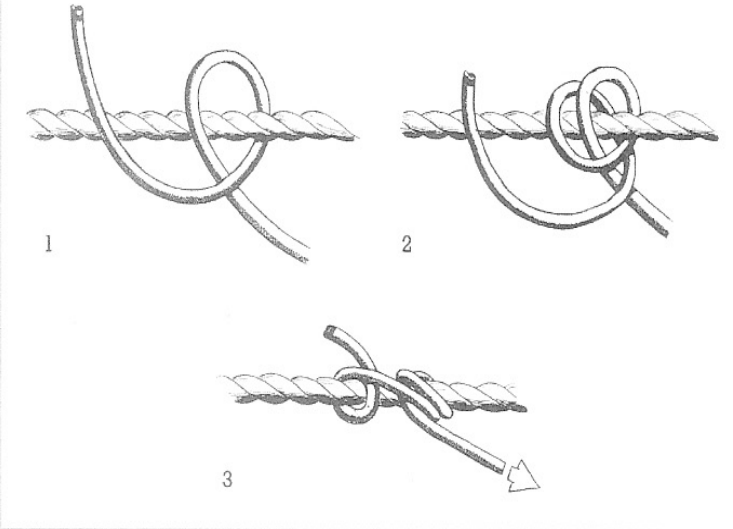
from his original publication in The Noon Balloon and edited for length and content - Part 2

Most frequently the advice they offered consisted of cycling slowly past (bikes were a common form of transport inside the sheds at that time) while eyeing our work (we were building the Chitty Chitty Bang Bang airship for the film of the same name) and leaving some encouraging words, such as "That will never work!"

We youngsters dubbed this negativity the Cardington disease although, of course, they were often subsequently proven quite right and what we were embarked on did not work when we got it out into the field. However, now and then, one of them would stop and impart some tidbits that were both positive and truly useful - such as how to tie "the knot we always used to tie down the mooring lines of the big ships."

This knot, according to Ralph "Dev" Deverell (a rigger who flew to Canada on R100) to name but one among several, was the Rolling Hitch, and it can be found today in many books on knots and/or sailing [***see scans on next page***]. Its great advantage over all other knots (including the Rosendahl Bend) when it comes to tying down airships, as we youngsters quickly found once we had acquired the technique for tying it, is that it can be tied with one hand while constantly keeping full tension in the mooring line with the other hand. Even more amazingly, it can also be untied, when you know what you are doing, while the airship is exerting more pull on it than can easily be held by four or five men. In other words, you can untie a Rolling Hitch while it is under full working load, instead of after the load has been taken off the rope, as with the Rosendahl Bend.

This calls into question why anyone would choose to use a 'Bend' (for joining ropes to each other) instead of a 'hitch (for tying a rope to a post or a ring) when intending to attach an airship mooring line to an anchor point? So, while I am prepared to concede that there is a possibility that the Rosendahl Bend might have been used for tying down the mooring lines of some US Navy airships, I know for certain, from first-hand testimony, that in Britain the Rolling Hitch was preferred for this task.



Rolling Hitch on Rope

Used to secure one line to another, for example a line being used to relieve tension on another, the Rolling Hitch remains most secure when load is applied from a direction roughly parallel to the standing rope.

The Hitch is formed by taking a turn about the standing rope followed by a second crossing over itself. This immediately locks the line and a final Half Hitch finishes the whole thing off. Greatest security is achieved if the turns are put on *with* the lay of the standing rope.

Occasionally a very stiff or springy synthetic rope will not remain secure when formed into a Rolling Hitch. It slips simply because the turns cannot grip properly. In this case a third initial turn should be taken to help bind the rope to either spar or second rope.

From : *Knots In Use* by Colin Jarman (drawings by Bill Beavis) (1988) Adlard Coles, London. ISBN: 0229117120

KNOTS, BENDS, SPLICES, ETC.

(11). A Rolling Hitch is commenced and finished like a clove hitch, but as will be seen from the three diagrams (Figs. 25, 26, 27) illustrating its construction, there is an intermediate round turn between the first and last hitches. It is principally used for securing the tail of a handy billy or snatch block to a larger rope.

From: *Brown's Knots and Splices* by J. N. Jutsum, (1941)
Published by Brown, Son & Ferguson Ltd., Glasgow

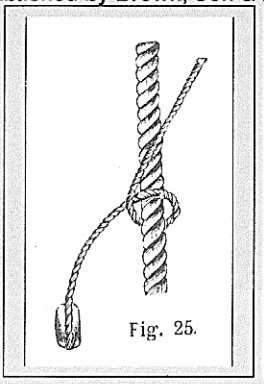


Fig. 25.

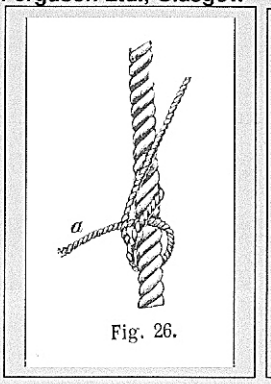


Fig. 26.

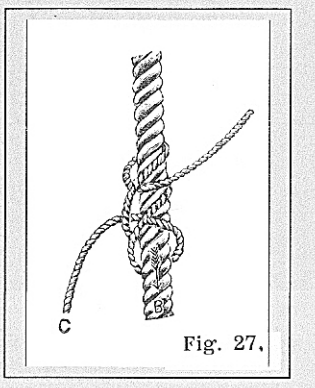


Fig. 27.

But what about attaching airships to mooring masts? Could the US Navy conceivably have used the Rosendahl Bend for this procedure? Joe Collins states that the Rosendahl Bend was used on the *Los Angeles* when it was "*tied to the mooring mast*." But, here again, I have severe doubts, and this time they stem from my research into the mooring systems devised for and used by the large airships of the past - particularly with regard to those that were owned and operated by the Americans. Briefly, the history books show that after the First World War, the Americans, having watched from afar the rapid development of the German Zeppelins during the war years, and noted their capabilities for making flights of long duration over far greater distances than any other contemporary flying machines, decided that they needed to do some catching up. Their strategy was a clever one, aimed at capturing as much knowledge in as short a time as possible. To that end, they embarked on construction of their own large rigid airship, the ZR1 (aka *Shenandoah*) which was built from plans of captured German Zeppelins while, at the same time ordering two other ships - one from the British, ZR2 (aka the ill-fated *R38*) and one from the Germans, ZR3 (aka *Los Angeles*).

However, when it came to ground handling, the US Navy decided to adopt a more conservative approach and opted to pay the license fees for a system devised and patented in Britain by one George Herbert Scott under the heading of *Improvements in Mooring Masts and Gear for Airships: (Patent No. 178,568 applied for 20th January 1921, granted 20th April 1922. US Patent 1,448,088 and Patent No. 179, 439 applied for 17th May 1921, granted 11th May 1922. US Patent 1,448,089).*

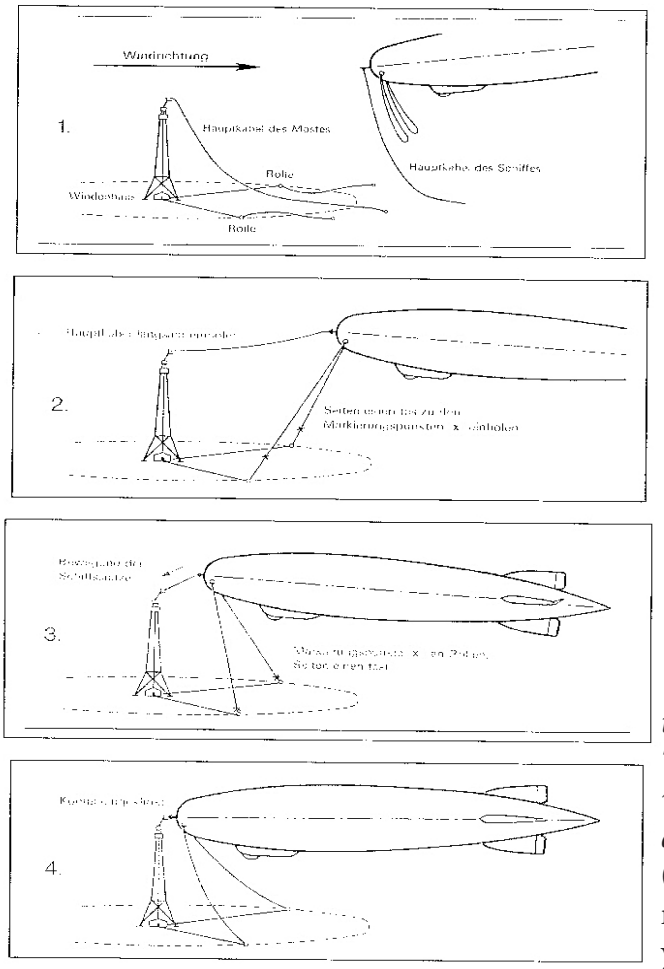
"Scottie" had captained the British R34 on its triumphal double crossing of the Atlantic Ocean in 1919, and during its 3-day stay near New York, the Americans had seen at first hand the problems of mooring such a large ship out in the open using what was at that time the only method available. This "3-wire mooring" worked reasonably well in fine weather but the British had subsequently conducted extensive trials of attaching their airships by the nose to mooring masts, work that had started before the war with experiments conducted by Vickers at Barrow.

By the time the American crews chosen to man their British acquisition (ZR2) were, as a part of the deal, training at the British experimental airship base at Pulham (see O'Claire's Notebook on p. 4) the mooring mast system had been tried, tested and proven in the field and both blimps and rigids could be moored with confidence in a wide range of weather conditions by a minimum number of men.

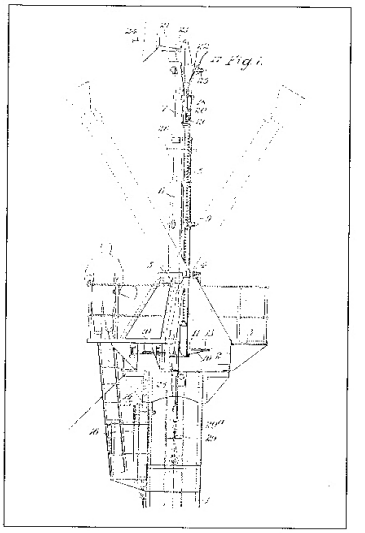
In essence, the British system consisted of putting the airship into a temporary and mechanically adjustable 3-wire mooring [***see next page***] from which the nose of the ship was then winched down via a nose line until a cone on the airship "docked" with a socket that coupled it via a latch mechanism at the top of the mast. The other two ropes - the yaw guys - served to protect the airship surging forward and impaling itself on the mast during the hauling down process.

Now, I suppose it is possible that the US Navy used the Rosendahl Bend to tie the ends of the lines dropped from the airship onto their counterpart ground lines that were attached to the winches situated at the base of the mast? However, I doubt this for two reasons:

Firstly, according to George Meager, in *My Airship Flights 1915 - 1930*, the coupling of the lines by the ground crews of the R100, which used a refined version of the same system to dock at the Cardington and Montreal Towers in 1929 and 1930, was not done using a knot. Viz. "*...on looking through the hatchway we see the bunch of men at the landing 'T' run forward and drag the end of our main wire toward the 'T' where*



From: *Zeppelin - Dornier - Junkers* by K. Grieder, (1989)
Pub. by Desertina Verlag, Germany : ISBN 3856371877



Scott's Mooring Mast - Patent 178,568

*they **shackle it by means of a Thomas Block** to the 25-ton wire led out of the mooring-arm on top of the tower.* (Meager, 1970: p 156)" Admittedly, this was some eight years after Scott first took out his patent, but it is during the operational lifetime of ZR3/ Los Angeles (1924-1932). Also, it is hard to believe for a second reason, namely that the coupling, however it was done, would have had to pass, without snagging, not only over the lip of the mast-head cone, but then through the latch-mechanism and down the centre of the mast, to end up finally wound onto the winch drum. Some sort of smooth shackle would seem a much better/quicker bet for this than the Rosendahl Bend, which would have left two ends loose - unless additional time were taken by the ground crew to tie them in or put on a whipping? It seems very unlikely to me. So there you have my reasons for doubting the origins of the Rosendahl Bend story. But, if you want to read the original article by Lee and Bob Payne, search for *The Forgotten Zeppelin Knot* on: **www.motherearthnews.com/**

WoW! Dragonflies!

by Colin Grundy

Dragonflies made by using square knotting or Solomon's Bar has proved one of the most popular activities over recent years for children at shows and fêtes to have come from the IGKT.

Why WoW you might ask? Well, WoW stands for Wild over Waterways and is used as an educational and activity base for young people by both British Waterways, the Government organisation responsible for some of Britain's inland waterways, and the Inland Waterways Association (IWA) a charity that promotes the use of inland waterways. WoW at shows often takes the form of a series of water-based activities for children to undertake. They are issued with a passport and, after completing each activity, such as pond dipping, brick laying or even knot tying, they gain a stamp in their passport. On submission of a fully completed passport, the child receives a gift.

Where did the dragonflies originate? Well I personally don't know, and I'm sure some Guild members would hold their hands up to being the creator, but that is not important. What is important, is that it is a means of introducing children and young people to knot tying. Not only young people, but a great deal of interest has also been shown by adults. And I'm sure there must be at least one new member to the Guild as a result of this activity.

Over a period of a few years, the tying of dragonflies has been refined, and we now have quite a bit of experience in this area. That is not to say that we don't still learn new wrinkles each time the activity is run. It is simple and has proved to being within the capabilities of children as young as two years, or those with some degree of handicap. It only requires patience on the part of the tutor, and the ability to try and find a solution when the student is having some difficulty.

The tying of dragonflies is based on a simple jig or pegboard, usually cut from a piece of 15-18mm thick wood. Holes are made in the board to take pegs. These have varied from nails to dowels and even plastic golf tees. We have found that it is better to have some sort of knob or thickening on the end of the peg. Children can get their face very close to the pegs while concentrating on the tying.

The cord is usually about 2 metres of 3mm diameter cord. A knot tied in one end helps to remind the student which end to start with each time. Usually after the first six or seven knots, the child has got the hang of the process and is able to continue mostly unaided. At the finish, if the cord is a man-made fibre, then a simple way of finishing is to cut the ends neatly and heat seal them. I hasten to add that this part is only carried out by the tutor - health and safety and all that. We explain to the child that it's okay for an adult to hurt themselves with sharp or hot objects, but not children!

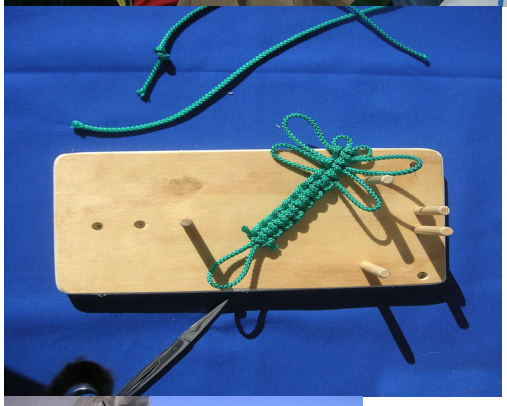
Parents and carers are often keen to help their charge tie the knots, feeling that the child must need their help. A gentle word such as, "only one teacher please", or similar comment usually does the trick and they back off. Another Guild member might engage them in other aspects of knot tying to keep the parent occupied. Ensure you are seated on the same level as the child; it's psychological but helps a child's confidence and allows eye contact.

Crowd control can be difficult. We have had as many as five stations on the go at one time due to the crowd of children wanting to take part. As long as activity is happening, you will be sure to have a steady stream of participants. If you don't have sufficient staff to rotate the tutors, at a suitable lull put the tools and cord away and people will drift off. They will be back! Based on experience and the amount of cord used, we estimate to make about 80-100 dragonflies in a day.

So popular has this become, that the Inland Waterways Association have introduced dragonfly kits into their WoW activity packs. These packs enable local IWA branches to run their own WoW activities. A copy of the dragonfly instructions can be downloaded from the IGKT Surrey Branch website. Log on to http://www.surreyknots.org.uk/chartpdfs/dragonfly_instructions.pdf [***Also look at page 34 in this issue - Ed***]

WoW Dragonflies Photographs

Crowd control. Sue Morris and Ken Nelson besieged at a waterways festival.



A dragonfly jig, made using drilled hardwood and dowels or golf tees with a finished dragonfly.

Caroline and Clive Sandrey run the base by getting on the same level as the kids.

Even Mr. Toad wants to make a dragonfly - Mmmm - tasty!!

Rice Straw Ropes from 6th Lunar Month

by Roger Carter, New Zealand

Dear Editor,

In my ongiong quest for knots and cordage in unusual places, I came across the photograph below. I hope it is of interest to your readers.

In Okinawa in the East China Sea the people celebrate a number of lunar festivals. The one pictured is the Festival of the 6th Lunar Month. Two rice straw ropes engage in a titanic tug-of-war - the eyes are approximately 1 metre (3.3-feet) in diameter and the ropes are about 150 metres (492-feet) long. As they are carried into the field, young boys stand on them as symbols of legendary Okinawan warriors.

The photograph shows the eyes being brought together to be locked with a pole. The ropes are male (R) and female (L), which suggests origins in a fertility rite - but these days victory by the female rope will portend a bountiful harvest. The picture originals are about 30-years old.

From the Editor's Blotter

There appears to be a shift in the time-space continuum! Looking back over the last 100 or more issues of Knotting Matters it is evident that fewer members wish to explain some knot or another with which they are familiar and fewer Branches are reporting about their activities. There is some move being made to explain the unexplainable and there are many meetings to talk about ourselves with others. Marketing is making inroads into everyday life and sales and growth remain stagnant.

What does the above have to do with knot-tying? Perhaps it is a signpost to our own activities that we have slowed down, albeit imperceptibly, and that we wish to ponder instead of explain - maybe because we recognize that we do not have all the answers - the intricacies of our chosen avocation. The numbers of our eclectic group have remained stagnant for many years, with some members retiring or going to a state beyond this life and others joining for a brief time. This points to a group that has become complacent, that is not apparently concerned with growth but is happy to rest on its laurels.

Where are our efforts leading us? I would like to know what you think about our current and future activity. Yes, we put on displays and we make overtures to link with other groups but do we really want others to join us in our soirees? Are we not just as happy to remain constant and to not look beyond our own time? Where does the road ahead lead and can we design where it goes instead of taking it as a continuation of our present path?

I hope that you enjoy the current offerings from our members and readers to your magazine - it is a thrill to hear and read what you say and do. Where do you think we should be going? I earnestly await your comments.....
Happily knotting through life, your editor, Lindsey.

How I Did It
Kringle Mat

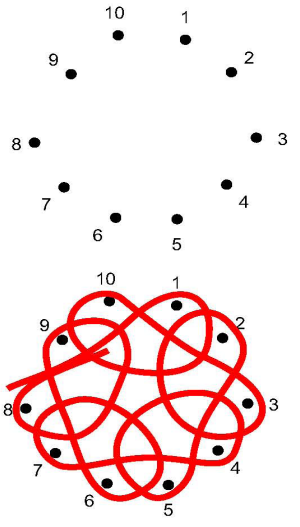
by Phil the Rope

Tying a Kringle Mat

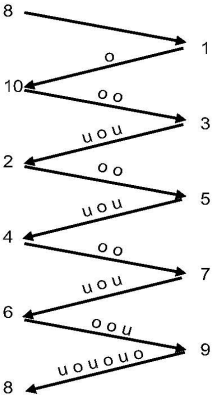
I don't know about you, but I've always found it difficult following a diagram or photograph of a Kringle Mat, trying to keep track of what "goes over" and what "goes under" when there are so many loops.

So ... I decided to draw a series of diagrams to take me from one loop to the next.

I set out 10 pins in order to make a Kringle Mat coaster, numbering them as indicated below-

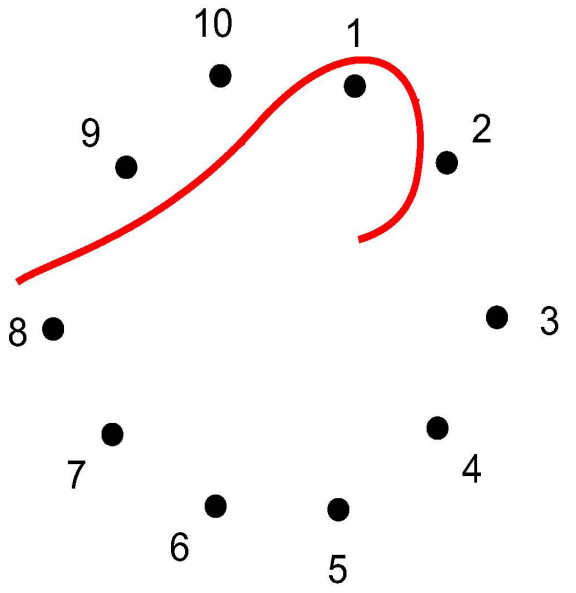


I established that I needed to construct my coaster by forming loops in the following order, observing the "overs and unders" along the way -

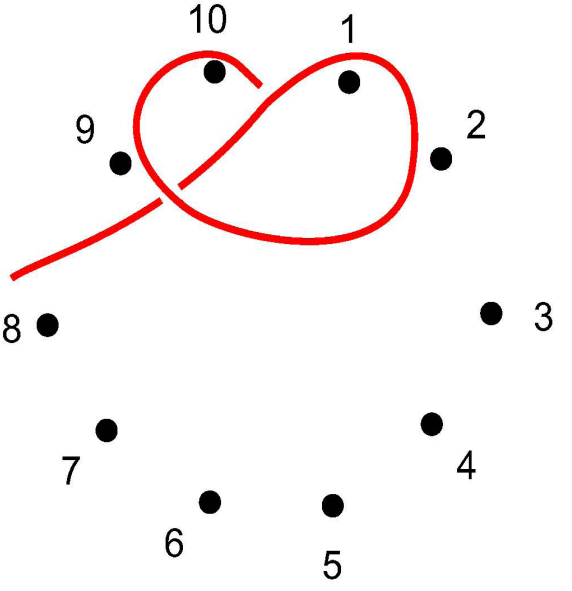


I hope the sequence of diagrams on the following pages help.

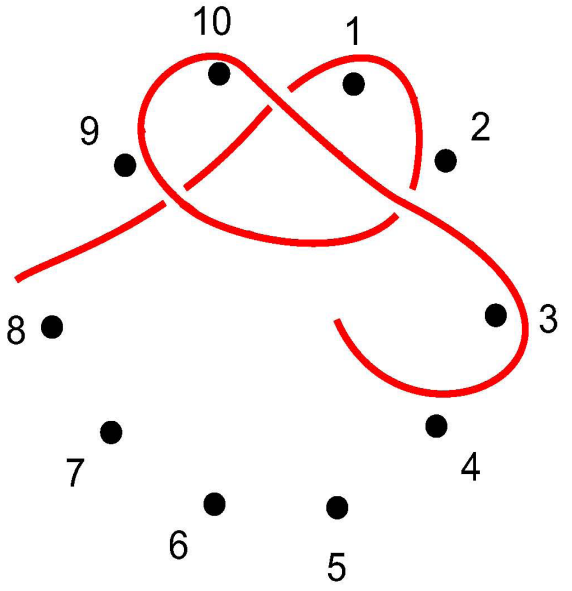
From 8
to 1



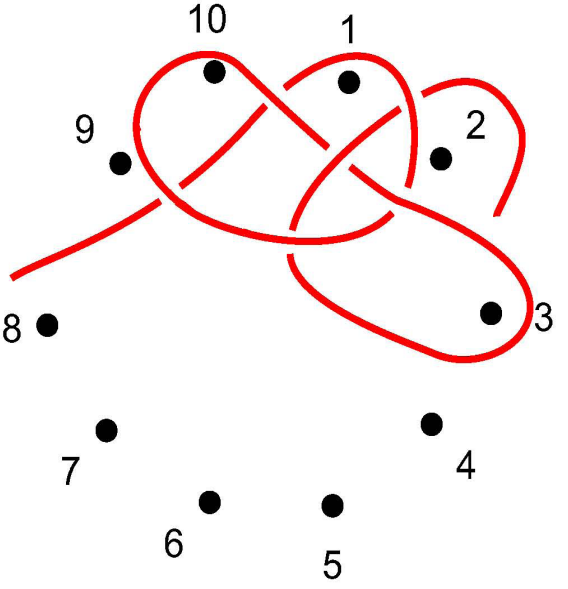
From 1
to 10 -
Over



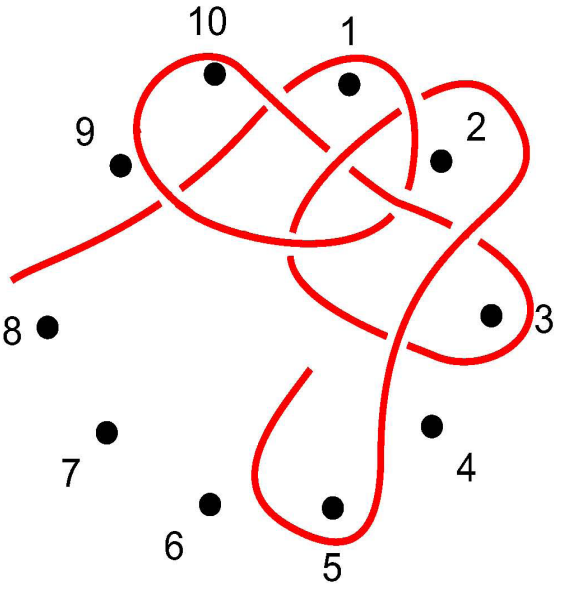
From 10
to 3 -
Over, Over



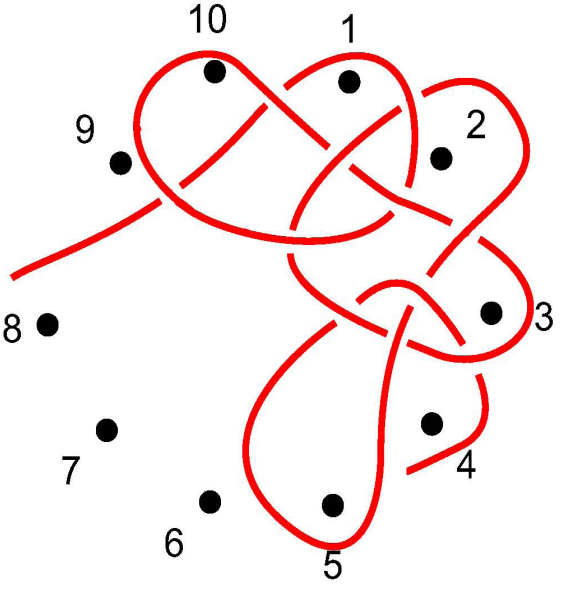
From 3
to 2 -
Under,
Over,
Under



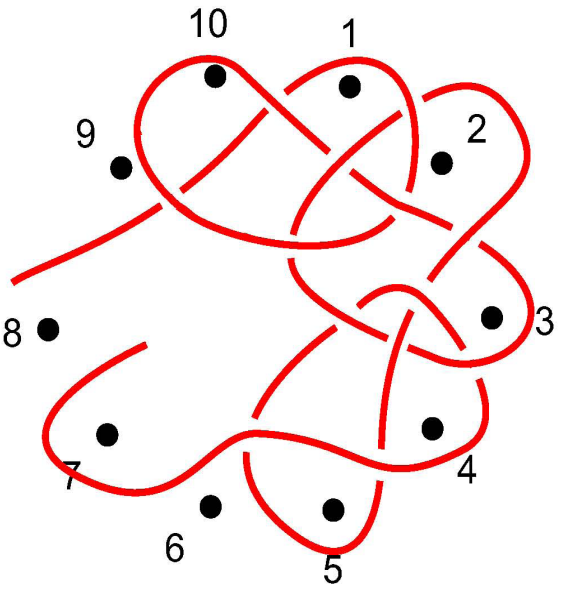
From 2
to 5 -
Over, Over



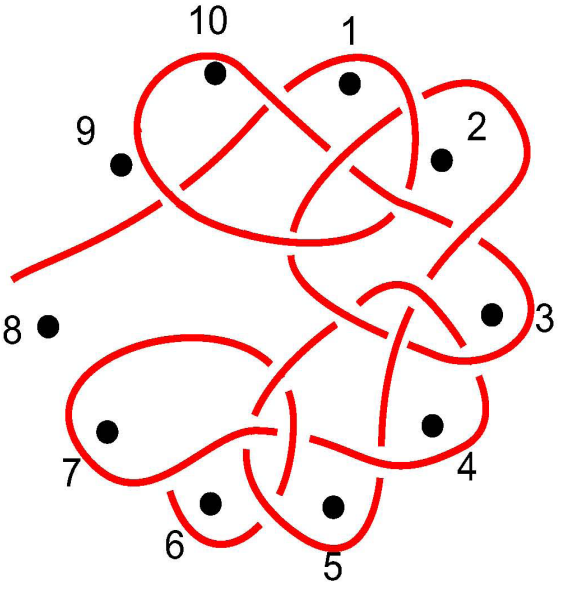
From 5
to 4 -
Under,
Over,
Under



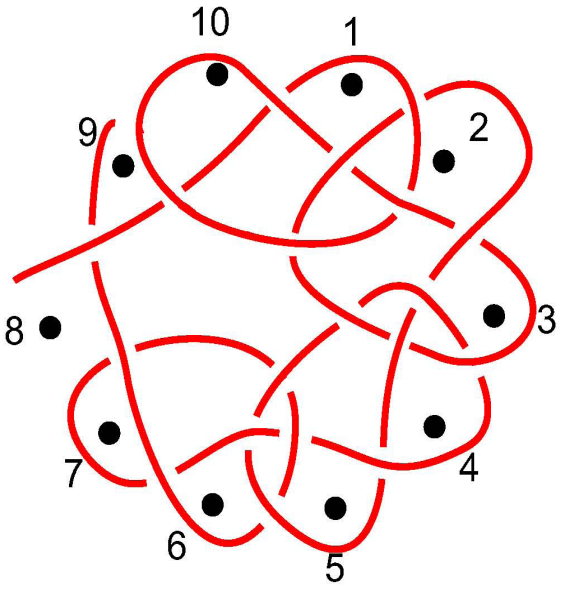
From 4 to 7 - Over, Over



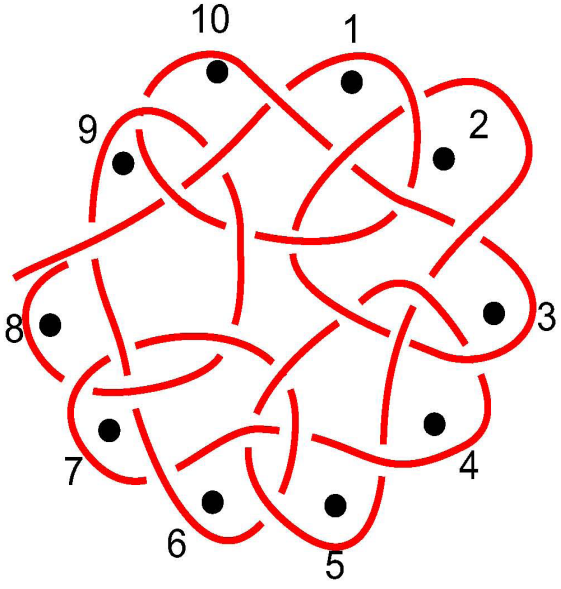
From 7 to 6 - Under, Over, Under



From 6 to 9 - Over, Over, Under



From 9 to 8 - Over, Under, Over, Under, Over, Under



Having completed the “first pass”, one can now double or treble the leads.

Of course, some time will be needed to tighten and manipulate the pattern into shape

Half-yearly meeting in the UK

Dates – From Friday evening, October 7th until Sunday October 9th.

Place – Gloucester Waterways Museum, Llanthony Warehouse, The Docks, Gloucester, GL1 2EH Telephone 01452 318200
Email gloucester@thewaterwaystrust.org.uk
Website http://www.gloucesterwaterwaysmuseum.org.uk/
We are hoping to be able to arrange free parking during the meeting.

Events - Visit to Tommi Nielsen's boatyard which is very close to the Museum.

Presentation by Des Pawson on "Ropemaking - An Insight" which includes items on Ropemakers Guilds, The Structure of Rope, Fibres and their Processing, Ropemaking, Ropewalks.

Video linkup with the simultaneous NAB meeting in Indianapolis

Catering - We are arranging for lunch on Saturday (about£5) and for a dinner that evening (about £15) and coffee/tea to be available throughout. Additionally, there are several cafés, bars and restaurants in the area.

Hotels etc –There is a Travel Lodge a short way from the Museum and we are arranging a group booking if enough members wish to stay. It is always cheaper to book early.
Travel Lodge, Gloucester Quays, St Ann Way, Gloucester GL1 5SF 0871 984 6427

Other nearby hotels – there are several more
The New County Hotel 44 Southgate Street, Gloucester GL1 2DU 01452 307000
The New Inn 16 Northgate Street, Gloucester GL1 1SF 01452 522177

Getting there – The Museum is in the centre of Gloucester. Gloucester Waterways Museum is located in Gloucester's historic docks. From M5 junctions 11a or 12, the A38, A40 or A417, follow the brown signs to Historic Gloucester Docks. The entrance to the Museum car park is from the east end of Llanthony Road.

Gloucester railway and bus stations are across the road from each other on Bruton Way. The museum is a 15 - 20 minute walk via Clarence Street, Eastgate Street and Southgate Street. There is a taxi rank at the train station and near the bus station

Booking – Please do let the Secretary know if you are coming.
secretary@igkt.net, +44(0) 1865 378 104
78 Marlborough Avenue, Kidlington, OX5 2AP, UK

The

International Guild of Knot Tyers

along with the IGKT-North American Branch

and the IGKT-NAB Knot in the Middle Chapter

Announce a Joint

2011

More to Come Soon!

Half Yearly Guild Meeting

Bi-Annual Guild Meeting

Quarterly Guild Meeting

Early Release Details Pending

to be held in **October 2011**.

Training - Teaching - Tying / Official Official Business / Places to Visit

When: October 7 - 9, 2011

Where: Indianapolis, Indiana, USA

Venue: Embassy Suites Indianapolis - North
3912 Vincennes Road
Indianapolis, Indiana, United States 46268
Tele: (317) 872-7700 Fax: (317) 872-2974

Early Release Details Pending

http://embassysuites1.hilton.com/en_US/es/hotel/INDNHES-Embassy-Suites-Indianapolis-North-Indiana/index.do

PLEASE NOTE: An actual Direct link to IGKT Hotel Reservations Page is pending. When available, the link will allow our members to book thier rooms on-line and receive the appropriate group rate we have negotiated. Please wait for that link before you make you reservations with the hotel. Alternatively, you may call in your reservations. If so, be sure you reference the IGKT event.

Officially planned for Friday through Sunday (October 7-9, 2011), the Knotters in the KitM Chapter are working hard to arrange local site seeing opportunities for our members from out of town/state/country. We are hoping to provide our visitors with oppotunities to see points of interest beginning on Thursday and running through Monday. The actual timing and locations is pending and will be framed around the needs and desires of our registered Members.

For **more information,**
to offer your knowledge as one of our **trainers,**
or to contribute suggested **"Must Do's"** to be included in the event,
please contact Rusty Helms.

Initial Contact Information = Rusty@HelmsCPA.com (Memo: IGKT Meeting) or

The Ancient Art of Laying Rope

by Jakob Bohr and Kaspar Olsen

Abstract:

We describe a hitherto overlooked geometrical property of helical structures and show how it accounts for the early art of ropemaking. Helices have a maximum number of rotations that can be added to them - and we show that it is a geometrical feature, not a material property. This geometrical insight explains why nearly identical appearing rope can be made from very different materials and it is also the reason behind the unyielding nature of ropes. The necessity for the rope to be stretched while being laid, known from Eqyptian tomb scenes, follows straightforwardly, as does the function of the top, an old tool for laying ropes.

Department of Physics, Technical University of Denmark, Building 307 Fysikvej, DK-2800 Lyngby, Denmark

Rope and Line Trivia

2800 BCE: Hempen fibres used to make rope in China
1831 to 1834: Wilhelm Albert invents wire rope
1889: Count Hilaire de Chardonnet invents artificial silk (Rayon)
1900: The Zeppelin is invented
1935: Carothers of DuPont invents Nylon (canned beer appears for the first time)
1941: Polyester fiber invented by Whinfield & Dickson, Birtwhistle and Ritchie
1949: Olefin invented
1955: Optical fiber introduced and Velcro invented (!)
1966: Stephanie Kwolek of DuPont invents Kevlar
1973: Gene splicing invented (tongue-in-cheek!)
1977: Twaron (Para-aramid) invented by AKZO
1979: Dyneema (UHMWPE) invented by DSM Company

The Yanks Are Coming (lock up the liquor)!

The U. S. S. Constitution (Old Ironsides), as a combat vessel, carried 48,600 gallons of fresh water for her crew of 475 officers and men. This was sufficient to last six months of sustained operations at sea. She carried no evaporators (i.e. fresh water distillers). However, let it be noted that according to her ship's log, "On July 27, 1798, the U.S.S. Constitution sailed from Boston with a full complement of 475 officers and men, 48,600 gallons of fresh water, 7,400 cannon shot, 11,600 pounds of black powder and **79,400 gallons** of rum."

Her mission: "To destroy and harass English shipping." Making Jamaica on 6 October, she took on 826 pounds of flour and **68,300 gallons** of rum. Then she headed for the Azores, arriving there 12 November. She provisioned with 550 pounds of beef and **64,300 gallons** of Portuguese wine. On 18 November, she set sail for England.

In the ensuing days she defeated five British men-of-war and captured and scuttled 12 English merchant ships, **salvaging only the rum** aboard each.

By 26 January, her powder and shot were exhausted. Nevertheless, although unarmed she made a night raid up the Firth of Clyde in Scotland. Her landing party captured a whisky distillery and transferred **40,000 gallons** of single malt Scotch aboard by dawn. Then she headed home.

The U. S. S. Constitution is reported to have arrived in Boston on 20 February 1799, with no cannon shot, no food, no powder, no rum, no wine, no whisky, and **38,600 gallons of water**.

This totals to a little over **2-1/2 gallons** of liquor, beer, or wine and a total of just over ¾ of a pint of water **per man per day for 208 days** and also assumes the Brits had no spirits, wine or beer aboard the seventeen captured or scuttled vessels – the Yanks consumed this staggering (I would have been staggering after just one day!) quantity - **EVERY DAY** – believe it or not?

Alaskan Branch
Every Wed. evening 6:30 to 8:00
Anchorage Senior Center
1300 E 19th Avenue, Anchorage
Contact Mike Livingstone
Tel: (1) 907/929-7888

East Anglian Branch
Contact: Des Pawson
Tel: +44(0) 1473 690 090
e-mail: des@despawson.com

French Branch
Contact Graham Maclachlan
www.igktfrance.com

German Branch
Contact: Peter Willems
IGKT Deutsche Sektion e.V.
c/o Schifffahrtsmuseum
Schiffbruecke 39
24939 Flensburg, Germany
Telephone: xx49 173 46 34 679
Email: info@knotengilde.de

Midlands Branch
The Old Swan, Netherton
Contact: Bruce Turley
Tel: 0121 453 4124

Northwest Branch
Contact: Dave Walker
Tel: 01244 682 117

Netherlands
Every last Saturday (except Dec.)
De Hoop, Rotterdam
Contact: Jan Hoefnagel
Tel: 078 614 6002

NAB - Mid-Atlantic Region
Contact: Michael Pollock
See handbook for details

NAB - Knot in the Middle
Contact: Rusty Helms
See Handbook for details

Pacific Americas Branch
Second Tuesday of each month
Los Angeles Maritime Institute
San Pedro, California
Contact: Jimmy Williams
Tel: (1) 310/679-6864
e-mail: igktpab@gmail.com

Solent Branch
Second Tues. of even-number months
Fareham Sailing and Motor Boat Club
Fareham, Hants, UK
Contact: Ken Yalden
Tel: +44(0) 23 9225 9280

Surrey Branch
Meetings are held at Guildford District Scout Centre, Nightingale Road, Guildford, starting at 20:00 hrs. Please phone for more details
Contact: Howard Denyer
Tel: +44(0) 1483 536 401
www.surreyknots.org.uk

Sweden
Contact: Christoffer Åström Tel: +46 736 381 731

West Country Knotters
Last Sat. of odd months @13:00 hrs
The Benjamin Perry Boathouse Activity and Training Centre
Phoenix Wharf, Lower Guinea Street, Bristol BS1 6TJ
Contact: Richard Hopkins for directions
Tel: 0117 986 7146
May be subject to change - call first

West Yorkshire Branch
Contact: David Pearson
Tel: 0113 257 2689

Back cover - Adults also enjoy dragonflies! Clive Henderson, National Chairman of the Inland Waterways Association proudly displays one he has made !